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Identification of the Case

Application Number: 181025/2001

Party effecting the amendment:

Identification Number: 000005108

Name: HITACHI, LTD.

Agent

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Amendment 1

Object of Amendment - Document Title: Specification

Object of Amendment - Item Title: Claims

Method of Amendment: Conversion

Amendment Details

[Claims]

[Claim 1]

An optical repeater used in an optical transmission system which multiplexes an optical data signal and an optical supervisory signal and transmits them through an optical transmission line, comprising:

a demultiplexer which demultiplexes said optical data signal and said first optical supervisory signal which have been received from said optical transmission line and multiplexed;

an exciting light source which outputs exciting light used to amplify said optical data signal;

a first multiplexer which multiplexes said exciting light and said demultiplexed optical data signal;

an optical fiber which receives said optical data signal multiplexed with said exciting light and outputs said amplified optical data signal;

an optical receiver which receives said first optical supervisory signal from said demultiplexer and converts it into a first electric supervisory signal;

a controller which receives said first electric supervisory signal and makes a second electric supervisory signal by adding information on a fault in said optical transmission line to said first electric supervisory signal and outputs it;

an optical transmitter which receives said second electric supervisory signal and converts said second electric supervisory signal into a second optical supervisory signal; and

a second multiplexer which multiplexes said amplified optical data signal with said second optical supervisory signal outputted from said optical transmitter,

wherein the wavelength of said first optical supervisory signal or said second optical supervisory signal is approximately 1.48  $\mu\text{m}$ .

[Claim 2]

The optical repeater as claimed in Claim 1, wherein said optical receiver detects the output value of said first optical supervisory signal, makes a decision about a fault in said optical transmission system according to said detected output value, and creates information on a fault in said optical transmission line.

[Claim 3]

The optical repeater as claimed in Claim 2, wherein said controller compares said output value with a predetermined value and decides whether said output value is abnormal or not to make a decision on a fault in said optical transmission system.